Letters in Mathematical Physics **21** (1991)

Contents to Volume 21

Volume 21 No. 1 January 1991

Publisher's Note v

J. SOBCZYK and W. URBANIK / A Canonical Form of an Algebraic Equation for Genus 3 Riemann Surfaces 1

NASSAR H. S. HAIDAR / On Pseudo-Continuities in the Eigenvalue Continuum of One-Speed Neutron Transport Theory 7

MANFRED SALMHOFER and ERHARD SEILER / Proof of Chiral Symmetry Breaking in Lattice Gauge Theory 13

C. KLIMČÍK / 'In' and 'Out' Vertex Operators in a Class of UV-Finite Nonlinear σ-Models 23

S. L. WORONOWICZ / A Remark on Compact Matrix Quantum Groups 35

GEORGE D. RAIKOV / Strong Electric Field Eigenvalue Asymptotics for the Schrödinger Operator with Electromagnetic Potential 41

BRANISLAV JURČO / On Coherent States for the Simplest Quantum Groups 51

WIESLAW PUSZ / On the Implementation of $S_\mu U(2)$ Action in the Irreducible Representations of Twisted Canonical Commutation Relations 59

H. GROSSE and E. LANGMANN / On Current Superalgebras and Super-Schwinger Terms 69

TAKASHI TAKEBE / Representation Theoretical Meaning of the Initial Value Problem for the Toda Lattice Hierarchy: I 77

MOSHÉ FLATO and ZHICHENG LU / Remarks on Quantum Groups 85

Volume 21 No. 2 February 1991

V. D. LYAKHOVSKY, N. N. SHTYKOV, and D. V. VASSILEVICH / DeWitt–Schwinger Expansion for Projective and Grassmann Spaces 89

YU. A. KUPERIN, YU. B. MELNIKOV, and S. P. MERKURIEV / Total *S*-Matrix and Adiabatic Amplitudes for the Three-Body Problem 97

A. V. KITAEV / Quadratic Transformations for the Sixth Painlevé Equation 105

D. JURIEV / An Explicit Form of the Vertex Operators in Two-Dimensional $SL(2, \mathbb{C})$-Invariant Field Theory 113

JOHN C. BAEZ / The Vacuum and Lightcone Quantization of Interaction Hamiltonians 117

M. L. NAZAROV / Quantum Berezinian and the Classical Capelli Identity 123

ANDREI A. KVITSINSKY and SETH PUTTERMAN / Adiabatic Dynamics for a Class of Quantum Hamiltonians 133

VOLKER BACH / Ionization Energies of Bosonic Coulomb Systems 139

H. J. BORCHERS and JAKOB YNGVASON / Local Nets and Self-Adjoint Extensions of Quantum Field Operators 151

F. BENATTI, H. NARNHOFER, and G. L. SEWELL / A Noncommutative Version of the Arnold Cat Map 157

JOUKO MICKELSSON and S. G. RAJEEV / Deformation of Current Algebras in 3 + 1 Dimensions 173

Volume 21 No. 3 March 1991

KAZIMIERZ BRĄGIEL / On the Wigner–Eckart Theorem for Tensor Operators Connected with Compact Matrix Quantum Groups 181

NAIHUAN JING, MO-LIN GE, and YONG-SHI WU / A New Quantum Group Associated with a 'Nonstandard' Braid Group Representation 193

G. M. TUYNMAN / Quantization of First-Class Constraints with Structure Functions 205

A. M. GAVRILIK and A. U. KLIMYK / q-Deformed Orthogonal and Pseudo-Orthogonal Algebras and Their Representations 215

A. MENDOZA, A. RESTUCCIA, and I. MARTIN / Reduction of 4-dim Self-Dual Super Yang–Mills Equations onto Super Riemann Surfaces 221

ARMIN UHLMANN / A Gauge Field Governing Parallel Transport Along Mixed States 229

SLAWOMIR KLIMEK and ANDRZEJ LESNIEWSKI / A Golden–Thompson Inequality in Supersymmetric Quantum Mechanics 237

R. BEIG and W. SIMON / On the Spherical Symmetry of Static Perfect Fluids in General Relativity 245

Short Reviews Section:

YU. V. NOVOZHILOV and D. V. VASSILEVICH / Induced Classical Gravity 253

Volume 21 No. 4 April 1991

GEORG KELLER / Fusion Rules of $U_q(\mathrm{sl}(2,\mathbb{C}))$, $q^m = 1$ 273

P. TRUINI and V. S. VARADARAJAN / The Concept of a Quantum Semisimple Group 287

MARCELO R. UBRIACO / Field Quantization in Non-Archimedean Field Theory 293

THOMAS W. KEPHART and TZU CHIANG YUAN / Discrete Monopoles and Instantons Over Projective Spaces 301

S. ZAKRZEWSKI / Matrix Pseudogroups Associated with Anti-Commutative Plane 309

CONTENTS TO VOLUME 21

D. IAGOLNITZER / Microlocal Analysis and Phase-Space Decompositions 323

E. RAGOUCY and P. SORBA / An Attempt to Relate Area-Preserving Diffeomorphisms to Kac–Moody Algebras 329

CHRISTIAN D. JÄKEL / Asymptotic Triviality of the Møller Operators in Galilei Invariant Quantum Field Theories 343

REINHARD HONEGGER / On the Dynamics and the Temperature States of the Spin-Boson Model 351